

KANK2 Antibody

Catalog # ASC11647

Specification

KANK2 Antibody - Product Information

Application WB, IHC-P, IF, E

Primary Accession <u>Q63ZY3</u>

Other Accession
Reactivity
Human, Mouse, Rat
Rabbit

Clonality Polyclonal Isotype IgG

Calculated MW Predicted: 95 kDa

Observed: 102 kDa KDa

Application Notes

KANK2 Antibody can be used for detection of KANK2 by Western blot at 1 µg/mL.

KANK2 Antibody - Additional Information

Gene ID **25959**

Target/Specificity

KANK2; Two alternatively spliced transcript variants encoding different isoforms have been identified.

Reconstitution & Storage

KANK2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

KANK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

KANK2 Antibody - Protein Information

Name KANK2

Synonyms ANKRD25, KIAA1518, MXRA3, SIP

Function

Involved in transcription regulation by sequestering in the cytoplasm nuclear receptor coactivators such as NCOA1, NCOA2 and NCOA3 (PubMed:17476305). Involved in regulation of caspase-independent apoptosis by sequestering the proapoptotic factor AIFM1 in mitochondria (PubMed:<a href="http://www.uniprot.org/citations/22371500"

target="_blank">22371500). Pro-apoptotic stimuli can induce its proteasomal degradation allowing the translocation of AIFM1 to the nucleus to induce apoptosis (PubMed:22371500). Involved in the negative control of vitamin D receptor signaling pathway (PubMed:24671081). Involved in



actin stress fibers formation through its interaction with ARHGDIA and the regulation of the Rho signaling pathway (PubMed:17996375, PubMed:25961457). May thereby play a role in cell adhesion and migration, regulating for instance podocytes migration during development of the kidney (PubMed:25961457). Through the Rho signaling pathway may also regulate cell proliferation (By similarity).

Cellular Location

Cytoplasm. Mitochondrion

Tissue Location

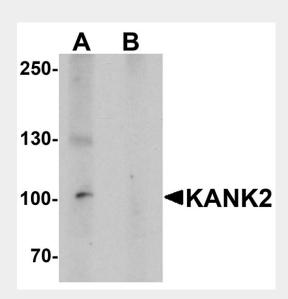
Strongly expressed in cervix, colon, heart, kidney and lung. Expressed in kidney glomerular podocytes and mesangial cells (at protein level).

KANK2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

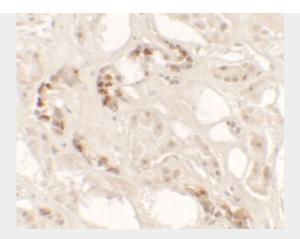
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

KANK2 Antibody - Images

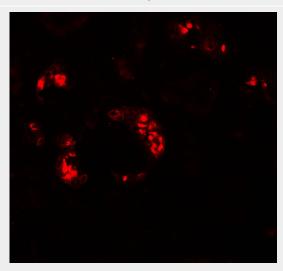


Western blot analysis of KANK2 in mouse brain tissue lysate with KANK2 antibody at 1 μ g/mL in (A) the absence and (B) the presence of blocking peptide.





Immunohistochemistry of KANK2 in human kidney tissue with KANK2 antibody at 2.5 μg/ml.



Immunofluorescence of KANK2 in human kidney tissue with KANK2 antibody at 20 µg/ml.

KANK2 Antibody - Background

KANK2 Antibody: Ankyrins are membrane adaptor molecules that play important roles in the control of cytoskeleton formation by regulating actin polymerization. KANK2 (KN motif and ankyrin repeat domain-containing protein 2), was initially identified as a steroid receptor coactivator (SRC) interacting protein (SIP) that could sequester steroid receptor coactivators in the cytoplasm. More recent experiments have shown that while KANK2 is widely expressed, in kidney podocytes, KANK2 localizes to foot processes, suggesting that KANK2 may contribute to controlling actin dynamics in podocyte foot processes.

KANK2 Antibody - References

Zhu Y, Kakinuma N, Wang Y, et al. Kank proteins: a new family of ankyrin-repeat domain containing proteins. Biochim. Biophys. Acta 2008; 1780:128-33.

Roy BC, Kakinuma N, Kiyama R. Kank attenuates actin remodeling by preventing interaction between IRSp53 and Rac1. J. Cell Biol. 2009; 184:253-67.

Zhang Y, Zhang H, Liang J, et al. SIP, a novel ankyrin repeat containing protein, sequesters steroid receptor coactivators in the cytoplasm. EMBO J. 2007; 26:2645-57.

Xu X, Patrakka J, Sistani L, et al. Expression of novel podocyte-associated proteins sult1b1 and ankrd25. Nephron Exp. Nephrol. 2011; 117:e39-46.